

REMARKS

Claims 1-10 are now pending in the application. Claims 1 and 7 have been amended. Support can be found throughout the specification, claims, and drawings originally filed including, for example, paragraph 0035 of the specification. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

INTERVIEW SUMMARY

Applicant would like to thank the Examiner for the courtesies extended to Applicant's representative during a telephonic interview on December 16, 2009. During that interview, the Examiner and Applicant's representative discussed the pending claims and the cited art. No agreement was reached.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Van Der Weij et al. (U.S. Pat. No. 5,781,245) in view of Trew (U.S. Pat. No. 5,936,661).

This rejection is respectfully traversed.

In section 3 of the outstanding Office action, the Examiner asserts that the caption overlaying module in the amended claim 1 is analogous to transmitter 618, inserter 616, generator 614, and server 612, wherein the combined video and TXT data is transmitted from one location to another. Applicants respectfully traverse the Examiner's assertions.

Van Der Weij appears to show some features regarding combining video data and teletext data supplied via a transmission channel and providing the teletext data representative of a plurality of teletext pages. Van Der Weij further appears to show a system that combines a display video data and teletext data. For example, a server transmits the video data and the TXT data to users as well as receives commands from the users in order to provide individual TXT pages to individual users. The TXT data and the video data are combined on a user's display so as to give the impression of a TXT page illustrated with video data. (See column 1, lines 4-9 and column 2, line 64 to column 3, line 3).

Further, column 4, lines 19-21 of Van Der Weij state "Inserter 616 merges the TXT data and the video data into a TV signal broadcasted by transmitter 618 via network 618." Column 4, lines 28-30 of Van Der Weij state "Preferably, system 600 is provided with user-interactive features to let the user control the content of the video data and/or TXT data via a user-interactive application." Column 5, lines 1-3 of Van Der Weij state "for example, a virtual library, whereupon the server provides him selectively with video and/ or TXT information[" Column 5, lines 16-18 of Van Der Weij state "Server 612 starts an application that enables the user to select video/text information on (real) holiday destinations[" Column 5, lines 21-23 of Van Der Weij state "Different ones of the video windows can interactively be combined with different ones of the TXT pages." Column 6, Lines 35-39 of Van Der Weij state that "Similarly, a multiple-user game or multiple-user activity such as a video conference can be governed through such TXT/video application. The video information may be received by apparatuses without TXT provisions."

From the above mentioned contents of Van Der Weij, one of ordinary skill in the art would clearly appreciate that even if inserter 616 merges the TXT data and the video data into a TV signal broadcasted by transmitter 618 via network 608, the TXT data and the video data are not “mingled.” In other words, the above exemplary portions of Van Der Weij show interactive features that enable selectively combining different ones of video windows with different ones of TXT pages according to users’ requests. The TXT data and the video data can be again separated at the receiving side and therefore are not transmitted as the claimed “mingled” image.

Claim 1 recites “overlaying the caption image on a digital service image to obtain the mingled image[.]” Thus, one of ordinary skill in the art would appreciate that claim 1 requires that at first the caption image is overlaid to a digital service image. For example, pixels of the caption are written into corresponding pixels of the digital service image. Thus, after overlaying, no matter whether or not the encoding or decoding is performed, the digital service image and the caption typically would not be separated again, because the corresponding pixels of the digital service image, where the pixels of the caption are overlaid, have already been changed and would not be restored to the pixels of the digital service image as before overlaying.

Applicants submit that Van Der Weij merely mentions that the inserter 616 can “merge” the TXT data and the video data into a TV signal, but does not teach or suggest that the “merging” process of the inserter 616 actually employs the claimed “overlaying” method to obtain a “mingled” image. Applicants submit that one skilled in the art would appreciate that the “merging” process in Van Der Weij may employ a time-division

mode--more specifically, utilizing the vertical blanking interval of the television signal--to carry TXT data (one example is shown in the other cited reference Trew).

Claim 1 further recites "to display captions on overseas terminals at the remote side independently of caption processing". One of ordinary skill in the art would appreciate that overseas terminals at the remote side (i.e., terminals outside China) cannot recognize captions of another language (such as Chinese captions in Europe). The caption and digital service data are transmitted to receiver in a time division multiplexing manner in Van Der Weij. Thus, although an overseas receiver (or terminal) receives the caption data, the overseas receiver (or terminal) does not support Chinese captions. Consequently, the system of Van Der Weij cannot display the Chinese captions on an overseas receiver (or terminal).

Claim 7 recites "transmits an encoded mingled image from the local side to the remote side to display captions on overseas terminals at the remote side independently of caption processing". One of ordinary skill in the art would appreciate that overseas terminals (i.e., terminals outside China) cannot recognize Chinese captions. The caption and digital service data are transmitted to receiver in a time division multiplexing manner in Van Der Weij. Thus, although an overseas receiver (or terminal) receives the caption data, the overseas receiver (or terminal) does not support Chinese captions. Consequently, the system of Van Der Weij cannot display the Chinese captions on an overseas receiver (or terminal). In contrast, the encoded mingled image in claim 7 is totally different from the multiplexed caption and digital service data in Van Der Weij. Claim 7 requires overlaying the caption image on the digital service image to obtain a mingled image, encoding the mingled image and transmitting the encoded mingled

image from the local side to the remote side to display captions on overseas terminals at the remote side independently of caption processing. That is to say, once the encoded mingled image is received at the remote side, the caption image and the digital service image cannot be separated.

Therefore, Applicants submit that Van Der Weij does not teach the above mentioned features of the amended claim 1, not to mention the other features such as "overlaying the caption image on a digital service image to obtain the mingled image, encoding the mingled image, and transmitting the encoded mingled image from the local side to the remote side to display captions on overseas terminals at the remote side independently of caption processing".

Although the Examiner has cited Trew for other purposes, Applicants here use Trew to further explain the above mentioned time division mode typically used in teletext. Trew appears to show a quiz show using an interactive television system. The time-division mode shown in the specification of Trew may be illustrated by its claims 12 and 13, which read as follows:

12. Television transmission apparatus as claimed in claim 8, wherein the auxiliary data channel is carried in a vertical blanking interval of the television signal.

13. Television transmission apparatus as claimed in claim 12, wherein the auxiliary data channel carries teletext data, said television transmission apparatus comprising means for encoding the answers in one or more teletext data packets.

As demonstrated here, the teletext data is carried in the vertical blanking interval of the television signal, and answers are encoded in one or more teletext data packets. One of ordinary skill in the art would appreciate that the vertical blanking interval of the television signal is outside of the video image. In other words, the vertical blanking

interval of the television signal and the video image are transmitted in a time-division mode. Since the teletext data is carried in the vertical blanking interval of the television signal, the teletext data and the video image are transmitted in a time-division mode, rather than transmitted as a "mingled" image.

Therefore, Applicants submit that the cited art does not teach or suggest the features of "overlaying the caption image on a digital service image to obtain the mingled image" in the amended claim 1.

As presented above, after an embodying system performs the above processes recited in the amended claim 1, the caption image would not be separated from the digital service image because both of them are mingled in one image. Thus, no synchronization mechanism is necessary at the receiving side, which can reduce the complexity and cost of the receiving device.

In view of above, Applicants submit that the amended claim 1 and its dependent claims 2-6 define over the art cited by the Examiner.

The amended claim 7 recites features similar to the above distinguishing features of the amended claim 1. Thus, the amended claim 7 and its dependent claims 8-10 also define over the art cited by the Examiner for one or more of the reasons set forth above regarding claim 1.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is

believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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